THURSDAY, MAY 22, 1873

THE FUTURE OF THE ENGLISH UNIVERSITIES

AN ECHO FROM OXFORD

THE Association for the Organisation of Academical Study has inaugurated a good work, which must in the end have an important result. But in the expressions of policy as yet put out by that body we notice an omission which perhaps is intentional, but in any case a very serious, indeed a fundamental one. It is well enough to declare that the collegiate and other revenues of Oxford and Cambridge should be devoted to the encouragement of research, and to placing the highest kind of teaching in all subjects within the reach of the people of this country. It is most true that to this end prize-fellowships and non-resident sinecures must be abolished, and in their place we must have carefully-chosen professors, assistant-professors, and lecturers, teaching and carrying on original research in all departments of knowledge. With such a programme in hand the members of this association can very plausibly demand for the old Universities that they be not despoiled of their excessive wealth, but that this wealth be made operative and productive within the limits of the Universities themselves. Nevertheless there is a question which necessarily arises—whenever the future of the English Universities is mentioned—which the Association has not discussed, and which we think it ought boldly to meet, even though it should lead to a split in the ranks. That question is this—Are Oxford and Cambridge to remain as institutions exclusively for the elegant education—the "culture"—of the upper classes who may choose and can afford to allow their sons to while away certain years there? or are they to be made engines of national education where a poor man may go with as much reason as a rich one; and profitably spend his time in acquiring knowledge and training which have a real value in the world and place their possessor in the position to earn his bread and his standing among men?

It is a fact that at this moment a youth entering a college at either Oxford or Cambridge and taking his degree after four years of a very pleasant life, having spent during the process at least 800*l.* (*i.e.* 200*l.* a-year) comes away, not a whit further on in the battle of life than he was on entering. He has acquired some good habits, many very bad ones, but has received no training nor instruction which will render him useful to other men, excepting—the exception is a very significant one—as a clergyman or as a schoolmaster.

The state of things is neither more nor less than this—that a young man cannot study at the English Universities and associate with even the most steady-going of his fellow-students at a less expense than that named above; and that the University cannot, at any rate does not, teach him anything in a practical or professional way. It is useless for Cambridge and Oxford to open their classes to non-collegiate students, as long as those classes are not something more systematised and practically-pointed than they can be, when exclusively designed as parts of a so-called elegant or "liberal" education. Men who are intending to work hard in life cannot afford to pass through such a course after leaving school; and hence our University students are, with a few exceptions, drawn from the richer classes; hence, too, the amount of luxury and rarity of earnest study amongst them, which reacts on many of their teachers. The present position of the Universities with regard to education for the business of life is merely that of a preparatory school. The same limitations of subjects—the same books are in force here, with some small additions for the few "honour men," as in our public schools, such as Eton, Harrow, and Rugby. The B.A. degree—the ordinary examinations for which any average boy on leaving school at sixteen or eighteen years of age could easily pass—absorbs nearly all the activity; is, in fact, almost the highest effort of each University. Almost all the teaching, certainly all the college work, is directed and governed by the requirements of this preparatory course which prepares for nothing. Whilst the intellectual standard thus held up is childish enough, it is necessarily accompanied by a system of tutorial superintendence and direction as wearisome as it is injurious.

In fact, the best effort in Oxford and Cambridge—the most striking movement in recent times—as compared with the dead calm of some fifty years since, has been rather a retrogression than an advance; we are less of Universities now than then, and have become more like—and are daily becoming more like—the great public schools, such as Eton and Harrow. The greater part of all the college-teaching staff is employed in doing the very same work as that done in the schools, which ought never to be required at a University at all. As the arrangements and innovations of the various college-bodies are watched, it becomes obvious that the schoolmaster is abroad in a very ambitious spirit with the avowed object of making the University a great Seventh Form, similar in discipline and character of instruction to his own pedagogic institution.

This state of things is defended by a large number of persons—among them members of the Association—with two words chiefly in their mouths—"culture" and "technical." It is maintained that "technical education" (an expression which is used for the purpose of suggesting the less intellectual side of what it is better to term "professional education") is not the function of the Universities, that it cannot be conveniently undertaken in them, that it is better carried out in the great cities such as London, Manchester, Edinburgh, whilst the Universities in their academic seclusion can administer that smattering of omniscience, dilettantism, and good manners which it is so important for persons of a certain income to possess. To obtain this a youth must be prepared to sacrifice time and money; and in offering this the University is, according to the opinion of many resident fellows, doing its work in the world. The selfishness of this view of University functions is patent enough. Clearly it is an easier matter to undertake this ornamental work, and to leave to others the business of life. It appears to be overlooked by its advocates that the Universities thus may, or rather have, lost all influence, all share in the life of the country. In

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renouncing technical or professional education, the University renounces all those who must have such education at the age when she might receive them. Those who really value, as we do above most things, breadth of intellectual interests—who have intense repugnance to narrow "specialism"—cannot, upon due consideration, defend the separation of "ornamental" and "technical" education, as likely to conduce to increase of culture among our fellow-countrymen. It is by undertaking most fully the charge of the higher education—of those for whom without distinction such education is necessary—that the Universities can really do most for the cause of culture. When Oxford and Cambridge succeed in getting hold of all such students then only can thoroughly satisfactory results be expected by those who are anxious for the progress of the higher education. What we desire more earnestly is, that Oxford and Cambridge may be the means of giving breadth of view and interest to as large a number of young Englishmen as possible, for it is this that we understand by "culture:" not the mere ease of manner due to luxury and the select association of leisured men. Oxford and Cambridge can spread true culture, and can have pretensions to such an office only when acting up to their trust and fully providing for the very best and fullest professional study in all departments. There are some to whom it appears important that the Association should plainly declare itself on this matter, before proceeding to the question of the foundation of institutions for scientific and literary research within the University. If on the one hand the Association were to declare for the exclusion of professional study, and at the same time to advocate the foundation of increased means and material of research within the University, we should feel at once that the policy of the Association would not be accepted by all. There is a great deal of human nature in the men who occupy distinguished positions in our Universities, and in the select atmosphere of non-professional students and cultured ecclesiastics there is an inevitable languor and repose of the mind which are infectious. The most vigorous body becomes limp before the sirocco, and in this atmosphere of luxurious culture it may be doubted whether even Faraday could have carried out his investigations: probably only by investing himself in a kind of mental diver's costume. On the other hand, the presence of an active body of those who for want of a better word we may call professional students—of men who, having neither time nor money for self-indulgence, determinedly work round their professor—the presence of a whole lot of such professors each so surrounded, and the association thus established between the Universities and the progress of the body of the country in the arts and sciences, would bring about a gigantic change. Professors so surrounded might with advantage be largely increased; the purely ornamental students would be by no means dislodged—they would remain in numbers then as now—but beneficially influenced by the example of the career-seeking and professional student. These in their turn would be benefited by a duly proportioned infusion of those students seeking exclusively "culture"—the amateurs and patrons of serious pursuits.

It is, then, only on the basis of professional training in the widest sense of the term, that we should care to see a reorganisation of Oxford and Cambridge. Let the colleges be taxed, say, to the extent of fifty per cent. of their revenue in order to support the professoriate and the appliances which each faculty may deem adequate, not only for direct "student teaching," but for progressive research. Then we may hope to see our Universities elevated from the condition of mere finishing schools for young gentlemen. If such a plan cannot be carried out, it would seem useless to simply create sinecures within the old places, larger and probably less productive than those which at present exist. Sharp and painful though the measure might be—we should in that case have to yield to the removal of means which have so long lain idle. The colleges would be relieved of their excessive income to support more practical institutions elsewhere, and Oxford and Cambridge would collapse into the condition of mere theological seminaries. When the Association meets on Saturday next, it would be well that this point should be raised, lest by the silence of the leaders of the movement, any one should be lukewarm in its support.

FRICK'S PHYSIKALISCHE TECHNIK

Oder Anleitung zur Anstellung von physikalischen Versuchen und zur Herstellung von physikalischen Apparaten mit möglichst einfachen Mitteln. Von Dr. J. Frick. (Braunschweig, 1872.)

THIS most useful book has now reached the fourth edition, and has swelled to 700 pages, illustrated by 986 wood engravings. To some British physicists and teachers the work has already proved itself serviceable, but there are doubtless many to whom it is at present unknown who would find much valuable information therein.

Dr. Frick's work is not in any sense a manual of experimental physics; it is rather an elaborate treatise upon physical apparatus and the methods of physical research. Its object, we learn from the preface, is to give an introduction to the methods of conducting physical inquiry, to enumerate the precautions which it is necessary to adopt in order to ensure success, and to give ample directions with reference to the construction of apparatus and its management. This field is, comparatively speaking, untrodden before, and we have no hesitation in saying how thoroughly successful Dr. Frick's attempt to guide us over it has proved. We shall briefly indicate the contents of the book, and then point out the few matters in which we think the execution of the task has fallen short of what might have been fairly expected.

The first part contains a sketch of the arrangements necessary for the physical laboratory, and a detailed account of the methods of manipulating glass, metals, and other materials which are required for the apparatus described in the second part. This portion of the book is very interesting and useful. We find here numerous hints on turning, glass-blowing, and similar processes with which it is well for the physicist to be acquainted. In the second part we have in Chap. I. a description of the apparatus necessary for the study of the equilibrium of forces applied to solids, liquids, and gases; Chap. II. describes the apparatus used for experiments on motion

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